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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

HIP-JOINT DISEASE.

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Of Middleport, Ohio.

(Concluded from No. 803.)

Symptoms—First Stage.—The initiation and early progress of this disease are very insidious, and its gravity very liable to be overlooked. It is properly a disease of childhood and youth, though adults occasionally become the subjects of it. The first that may be observed is a limping, shuffling, or kind of dragging of the affected limb, which is usually worse toward the approach of night. This is frequently accompanied with weary sensations, and slight pain in the limb, or aching around the hip. Close examination will show an anemic appearance, more or less marked, and not unfrequently disturbed sleep, and possibly sweating through the night; but from this the patient arises in the morning to resume customary sports, and but little of the locomotive impediment above mentioned will be observed by any one till later in the day. This condition may continue for weeks or months, growing very slowly and stealthily worse. During this time it will also be observed that the child always stands with all the weight on the sound limb, which naturally tilts that side of the pelvis up and the diseased side down, thus causing the *appearance* of lengthening of the affected member.

It will also be observed that the weight of the latter rests on the toes or "ball of the foot," which is placed a little in advance of

the other foot. This attitude is peculiar to this disease. (See "Attitude," *ante*.) Later, all the above symptoms become aggravated. The limping becomes more apparent, the pain more acute; the limb now shows marked atrophy, is soft and flabby; general emaciation is observable; the appetite and secretions become impaired, and sleep disturbed by spasmodic muscular contractions. The pain now complained of is located at the inner side of the knee, and will be sharp, lancinating, or dull, heavy aching. The knee, however, presents no signs of morbid change, and any reasonable amount of manipulation will fail to detect the presence of disease at that point.

The pain, however, is not always confined to the knee alone, for it will at times affect the different portions of the thigh, and in the acetabular variety be more confined to the hip. In one instance the pain was referred to the outer surface of the thigh at about the middle. In another case it was referred to the upper third of the gastrocnemius muscle, and sometimes seriously affecting the heel. Also a case, mentioned before, where the pain was located so much in the lumbar and sacral regions as to lead the attendants to treat the case for "spinal disease." These, however, are rather the exception than the rule.

When the first stage has advanced to this point, any movement or jar increases the suffering, also any changes of humidity or dampness of the atmosphere, sudden changes of temperature, the contraction of cold, or the suppression of any important secretion, especially of the skin, greatly aggravates the symptoms. It would be proper to say

that the severe suffering is not constant, but is irregularly periodic, being nearly always worst at night. Between these spasmodic attacks there are intervals of measurable comfort.

It would be proper to state that the thigh is also partially flexed on the abdomen. Barwell says the abdomen is partially flexed toward the thigh, and this is probably really true, for the spine, in the lumbar region, is always bowed forward, which would, of course, carry the abdomen towards the thigh. This is readily discovered by placing the patient on the back, when it will be seen that the weight rests on shoulders and sacrum, while the lower dorsal and lumbar portions are lifted well up from the couch. The leg is also slightly flexed on the thigh, and generally with the foot somewhat everted. Late in this stage, the pain for the most part shifts more permanently to the hip or its vicinity, and becomes more nearly continuous; the buttock may be slightly flattened. Pressure on the knee, trochanter, or percussion on the same, or sudden extension, will always prove the disease to be located at the hip, from the fact that these always increase the pain at that point.

Up to this time there is some perceptible impairment of the general health, yet not in any very marked degree. Another symptom, not mentioned above, is that the child, very early in the disease, will complain of pain if laid on the diseased side, also that there may be found some glandular swelling in the groin; and pressure in front or behind the trochanter will elicit expressions of suffering.

Second Stage.—The apparent lengthening now becomes more perceptible; the limp, if the patient walk at all, still more distinct, and attended with greater suffering. The buttock will also be flattened, and the gluteal crease effaced. A lateral twist of the spine will now be plainly seen; the pain in the hip and knee greatly increased, and the muscular spasm of the limb greater and more frequent, thus causing frequent waking, and pitiful expressions of suffering through the night; these symptoms always being worst after becoming warm in bed. The patient will also be observed to sweat freely when sleeping, and generally with an expression of dread on the face. The swelling at the hip is now more apparent, and this shows the more plainly as the limb below is considerably atrophied, soft, and

flabby. The thigh is now constantly flexed towards the abdomen, and the leg upon the thigh, with the knee turned outwards, and the foot everted. The reverse of this position is occasionally seen, but this is the exception, and not the rule. The depression posterior to the trochanter is also obliterated. The knee will be found to be lower than the other, which would naturally follow the letting down of that half of the pelvis, which gives the seeming increased length to the limb. (See "lengthening," *ante*.) The swelling now becomes very apparent, and tumefaction, or even fluctuation, may be detected by a well-practiced hand. The pain in the knee now, though still present, is not as prominent as that in the hip. In some cases pain in the spine, at the lumbar or sacral portions, is a prominent symptom. The patient's system will now be in sympathy with the suffering; the expression will be that of suffering and dread; the brows knit; a dark circle round the eyes; emaciation and pallor very noticeable; the skin during the day dry and feverish; the appetite greatly impaired; bowels usually constipated; urine probably scant and high-colored; the tongue furred, or possibly covered posteriorly with a thick, yellow coating, with red edge and tip. All the secretions will be more or less imperfectly performed.

These symptoms continue to increase in severity unless checked by treatment, until the suffering becomes extremely excruciating, but still attended with remissions of comparative relief, which, however, grow shorter and shorter, and the attacks of pain proportionately prolonged and more frequent, till at last little remission occurs. At last a sudden lull in the storm appears, and the patient seems better for a time, perchance improves, and believes, if old enough to express it, he is recovering, and in this all his friends gladly add to his cup of consolation. The hip, however, still remains swollen and very tender.

This period of relief may last from one to several weeks, or even two or three months. But at last the delusive hope is dispelled, the calm and transient sunshine is suddenly displaced by a more fearful burst of the storm that had formerly prevailed. This is the lull, so deceptive, that occurs between the second and third stage. This period of relief is caused by the bursting of the capsule of the joint, which permits the hitherto

pent-up fluid to escape into the surrounding tissues; thus, in a great measure, relieving the extreme pressure on that membrane and the nerves in that vicinity. The point at which the capsule bursts will be determined by the point of initiatory attack of the disease, and this will largely determine the location of the future abscess and sinus or sinuses, which become of interest late in the course, both in deciding which part was first diseased, and the (to some extent) practicability of operative interference during the following stage.

Third Stage.—With the suddenness of a shot or stab the pain again attacks the hip with increased violence, and these shocks, if possible, continue to increase in intensity. Instead of apparent lengthening, we now have *real* shortening, but the shortening is not as great as it seems, as the pelvis on that side now tilts *up* instead of *down*, making the abbreviation *seem* greater than it *really* is. The trochanter major now is more prominent and the flattening of the buttock greater. Soon more tumefaction occurs, and at some point this becomes more prominent, being the point indicating the effort of nature to discharge the pus. The formation of pus is also indicated by a throbbing sensation and a feeling of pressure or tension. The patient now has light rigors or chills, followed by slight reaction, and a hectic flush is frequently present, in fact, nearly always so, at some period during the day or night. The limb is more apparently atrophied, and the swelling at the hip greater; there may also be œdema below the point of swelling, with enlargement of the subcutaneous veins, which have a characteristic purplish appearance. Every movement of the joint is now attended with the most excruciating pain, and the patient will be unable to move the body in any way without assistance, and this, not so much for want of strength, as in consequence of the agonizing pain it causes. The constitutional evidences of disturbance become very marked, and all the organs sympathize with the local disease, and in very many cases visceral involvement occurs to hasten the fatal issue in the case, when such an issue transpires.

The position of the patient, if left to himself, is now quite characteristic of the disease, and this same position is often noticed in the latter part of the second stage. He will never be found lying on the diseased side, though the contrary has by some been

stated. He will either be lying on his back with the thighs flexed towards the pelvis and supported under the knee and at the side with pillows or sufficient props, or if he have no access to these means, will be lying on the sound side, with the body inclined towards the front, and the limb of the diseased side carried over anterior to the other, with the internal surface of the knee resting on the bed or on some object that will afford support. Also, in all attempts to move, the patient will seize the thigh with one or both hands, and carry it, if possible, without moving the joint, to the new position, where he will place it slowly and very carefully. This he does because the least friction of the articular surfaces causes agonizing pain.

Abduction during the former stages was a marked symptom; adduction is now equally apparent. Apparent lengthening being also present in the former, is now replaced with more or less shortening, and this is quite pathognomonic of the third stage. (See shortening *ante*.) When the matter becomes abundant it generally approaches the surface at some point in the vicinity of the hip, which may be known by an erysipelatous flush of the skin, and a doughy or boggy feel. Fluctuation may also be detected. The pus, however, may enter the pelvis, if the acetabulum has been perforated during the process of morbid action, or it may escape both internally and externally. When it enters the pelvis it may create serious inflammatory action, but will likely, sooner or later, find its way externally. It has been known to perforate the rectum, the vagina, or bladder, or collect in a pyogenic pouch between the iliac surface and the soft tissues immediately over it.

Usually, when the acetabulum is perforated, there is proliferation of tissue which prevents the pus from emptying into the pelvic cavity, or is sufficient to retain it within this space until the pus finds its way externally, after which there is little danger of its burrowing into the pelvis. Pus has also found its way down the thigh and opened out as low as the upper part of the middle third. The diagnostic value of the place of opening has been discussed. (See Sinuses.)

Diagnosis.—We think the diagnosis can be made out from the foregoing statement of symptoms, and will only mention a few complaints for which it may be mistaken. These are rheumatism, a sprain, scia-

tica, periostitis affecting the trochanters, or necrosis of the pelvic bones affecting tuber ischii, or one of the rami, a large gluteal or psoas abscess. It might also, as I saw in one case, be mistaken for "spinal disease" or lateral curvature of the spine. Also, for inflammation of the bursæ of the psoas iliac muscle. It *might* also be mistaken for wasting of the limb, or dislocation. But the diseases for which it is probably most likely to be taken, are neuralgia or rheumatism of the knee, or other diseases affecting that joint, of a painful nature. But this mistake ought not to occur, and would not if too much stress were not laid on the "knee pain," to the exclusion of other valuable signs. It is only in the early part of the disease that there can be any valid excuse for not at once recognizing its character.

Prognosis.—Under the head of excision of the hip joint, I shall probably have more to say in regard to the recovery or fatal issue from the disease. Let it suffice to remark here, that during the first and early part of the second stage, recovery under proper treatment is by no means uncommon, but when suppuration has been established recovery may take place, and sometimes does, with bony ankylosis, but the majority result fatally, either directly or through the implication of some important organs. Of course, much depends on the constitution of the subject. If it be highly strumous, little but an unfavorable issue can be expected. If it has been excited by exterior causes in a good constitution, recovery with a stiff joint may take place.

Treatment.—In the inception of this disease, we have simply an inflammation to treat, and this should be done the same as an inflammation in any other joint. The advantages of early treatment, properly directed, cannot be over estimated. The first sign of dragging the limb, or of limping, with pain in the hip, or at the knee, should awaken sufficient suspicion in the attending physician to cause him to institute a careful examination of the hip. The *pain*, *attitude*, and *gait* should receive special attention, and all collateral evidence should be gathered that could have any bearing on the diagnosis.

As we have simply inflammatory action to combat, it should be taken well in hand. One point in the treatment of an inflamed joint cannot be too early, and for a reasonable length of time, strenuously enforced, viz.,

rest. Every movement causes friction of the diseased surface, and thus increases the morbid action. In small children this is, of course, difficult to carry out for a sufficient time, yet success seems to lay in this plan only, for all other means can only be secondary to it. A vast number of apparatus have been invented for this purpose, many of which have serious objections. To fix the joint immovably requires the fixation of the pelvis as well as the limb. Among those used are the double inclined plane, Dr. Sayles and H. G. Davis' apparatus, Dr. Barwell's wire gauze apparatus,* the strait splint, and many modifications of these. I know of nothing that would serve more completely and satisfactorily to fill all the indications than a sufficiently large piece of gutta serena, well moulded to the thigh, hip and half the pelvis, well secured by proper bandages, and extension kept up until it becomes firmly set to the parts. If needed, a piece can be removed from over the trochanter to prevent pressure over the joint. A thick leather, well adapted, answers very well.

On the point of securing *rest* there is no division among authorities. From the time Dr. Physic proposed and carried out this plan, down to the latest authority, all are agreed upon it. Its necessity is imperative. Yet it is not as well carried out as our better judgment and experience teaches us. The importunings of the child, parents and friends for the privilege of moving about, are too apt to be entertained and granted. *It is* harrowing to the feelings to confine a little one to the couch in one position, or nearly so, for a series of weeks or months, yet *necessity* seems to demand it, for to retain quietude for a few days, and then allow motion, avails nothing. It must be continued, whether the time be long or short, until all tenderness at the hip, and pain at the knee have disappeared completely, and also until there is no limping or shuffling when an attempt to walk is granted. The inflammation, of course, may be acute, or subacute in type, or run a chronic course from the outset, and treatment of the first stage must be modified accordingly.

The *medical treatment* of these cases will be modified to suit each case, according as it is acute, subacute, or chronic, as well as to the primary seat of the disease, whether

* Barwell on Diseased Joints.

it be synovitic or attack the soft tissues of the joint, the head of the femur, or cotyloid cavity. These can frequently be determined from the first. The nature of the constitution must also be duly weighed. The acute and synovitic forms must be actively treated with rest, extension by weight and pulley, or other apparatus that does not prevent easy access to the hip. The surface all around the joint should be blistered with cantharidal vesicant, or cerate, or with strong tincture of iodine, the latter being frequently and freely applied. The secretions should be kept in the best possible order, and the strength of the patient upheld by tonics, and good, wholesome food from the beginning.

Of course, various remedies are applicable in different cases, and will be modified also according to the cause producing the disease. The cause usually charged is a scrofulous or tubercular diathesis. While this no doubt lies at the bottom of many of these cases, as a cause, yet I do not believe it to be so in the majority of cases. The opinion has long been taught, and still is so by the greater number of writers; but it is now losing ground with those who are strict observers. The cause is now well known to be frequently traumatic in character; and it is equally well established that an ordinary inflammation of a joint which has not been self-limited, nor controlled by therapeutic agents, may go on to the formation of pus within the joint, followed by abscess and fistulous opening, and pass through all the stages characterizing tubercular or scrofulous disease of the joint.

This I have seen in other joints than the hip, in more than one instance, and have at this time a case under treatment, of caries of the bones forming the ankle-joint, caused by an injury received months ago. He had always been healthy, and neither he nor his antecedents have ever manifested any scrofulous symptoms. I have seen the same with the knee, in at least two instances. If such can occur in the knee, why not in the hip also? This ground is well taken both by Barwell and Beaux.

Cases of this description, however, are far more liable to recover than those where the tubercular diathesis is well marked. I think, also, that in scrofulous subjects, where an injury to the joint occurs, that it is more liable to be developed into a carious or necrosed condition than in those not so con-

stituted. Seeing, then, the great difference in the constitutional status in different cases, all the evidence having any bearing in either direction should be well brought out in the investigation of each case in hand as it comes up.

In those not scrofulous, those measures should be used that come into play in treating a simple inflammation of the joint, and these will generally succeed; but if they should not, and the disease go on to suppuration, there will remain but little difference in the general plan of treatment, whether the subject be scrofulous or not.

If, however, the case be clearly scrofulous, then greater care, if possible, will be demanded, and a less favorable result must be anticipated. In this form, tonics and alteratives, as iodide of iron, or other form of iron, and iodide of potassium, generally, with alterative topical applications, should be well used. Good nourishment and hygienic measures should be adopted. If such measures fail, and the disease go on to suppuration, still similar measures will be found valuable; but when it is known where the pus is seeking exit, it should be poulticed at that point, and opened early.

One measure, not before mentioned, I think would be of great service in those cases where there is a strong tendency to the formation of pus, but where it has not yet been formed, and the capsule is greatly distended, and liable to burst. This is always so in the latter part of the second stage, *i. e.*, with reference to distension, and often in the first. That measure is articular paracentesis, performed with a very fine trochar and canula, or with a grooved needle, being always careful to admit no air. This means would relieve distension, by lessening the amount of fluid in the joint, and by this means afford great relief to the patient, and also remove that which is by its large quantity irritating the already diseased surfaces by its mechanical distension. This measure is better adapted to the synovitic than the osteitic form of the disease.

After sinuses have formed, the chief indications are to afford as much relief from pain as possible with anodynes. Support the system, maintain rest of the joint, and keep the whole economy in the best order possible under the existing condition; and this with a view to effecting recovery by bony ankylosis in the shortest time it can

be accomplished, and in the best possible shape.

If, after fair trial of all the proper means, recovery seems not likely to occur, then the question of *excision* becomes one of vital and practical importance. This question I propose to consider in a separate paper.

I have not so much attempted to give in full the treatment of this disease as I have to give the diagnostic symptoms and signs by which it may be recognized. The treatment is quite fully explained in all leading text-books on surgery of the present day, hence a fuller exposition is not necessary here.

CONGENITAL CYST OF THE NECK; OR THE "HYGROMATOUS CYST" OF VON AMMON.

BY WILLIAM R. McMAHON, M. D.,

Of Huntingburgh, Indiana.

I was called, on August 23th, 1870, to see the infant daughter of Aaron Utz, four days old. I found, on arriving, a well developed and bright looking child, with the front part of its neck completely occupied by a morbid accumulation, which reached from the lower part of the lobule of the left ear to within half an inch of the right ear. This tumor, with the head in the erect posture, completely filled the space between the upper part of the sternum and chin, projecting in front of the chin about one inch. The external boundaries were well defined. The skin covering the cyst was of normal color, with the exception of a few ramifications of small and tortuous blood-vessels.

I could not detect any fluctuation, yet with a properly adjusted light in a dark room it was semi-translucent. To complete my diagnosis of the nature of its contents and the coverings of its external wall, I introduced an exploring needle, and found that its anterior wall was *only* covered by the integument, superficial fascia, platysma-myoides, and from the puncture oozed a limpid serum.

My diagnosis being made, I advised no active interference until the child grew older and stronger. I heard nothing more of the case for one month. On my second visit

I found the cyst much larger; respiration imperfectly performed. The skin covering the cyst was now of a bluish tint, yet there was no oedema of the face or head. Fearing that active measures were yet premature, I simply made an incision at the most pendant part, in order to palliate the symptoms. This was successful.

On the 20th of November, 1870, I again visited the little patient, and found that the cyst was much larger than on my previous visit, and that deglutition and respiration were seriously impaired, with symptoms of passive congestion of the head and face. This condition of the patient demanded, if possible, something to produce a radical cure, for which I used a seton composed of two strands of surgeon's silk, which were passed from one extremity of the cyst to the other, entirely encompassing the anterior surface of the neck. From the entrance and exit of the needle there escaped a serous liquid for the first forty-eight hours, which reduced the size of the cyst so much that it seemed to be nothing but a redundancy of tissue.

On the third day there seemed to be no inflammatory action whatever, so I saturated the seton with tincture of iodine, and drew the saturated portion within the cyst. This was repeated each successive day, for ten days, at the end of which time there was quite a purulent discharge, and sufficient inflammation to demand the withdrawal of the seton, which was done. Suppuration continued for several days, and then ceased. From the time of the introduction of the seton until the close of treatment, external pressure was kept up, commensurate with the comfort of the child. After suppuration ceased, and all inflammatory action, the obliteration of the cyst was perfect, and the only mark left to designate the site of this formidable hygromatous cyst was simply a slight redundancy of tissue. During the entire treatment there was scarcely any febrile excitement or constitutional disturbance. This cyst was evidently a unilocular one, and the simple seton, in my opinion, in this case would not have produced sufficient inflammation to have affected the agglutination of cyst walls, which was perfectly accomplished by the combined action of seton and iodine, and yet perfectly under my control, which would not have been the case had I resorted to more powerful means, by injecting the cavity.

MEDICAL SOCIETIES.

The Michigan State Medical Society.

The Michigan State Medical Society met for its annual session in Grand Rapids, June 12. Although the first meeting in the annual session, the attendance of members of the Society was large, there being nearly one hundred physicians present.

The meeting was called to order by the President, Dr. H. O. Hitchcock, of Kalamazoo, Dr. Lenora Foster, of Otsego, First Vice President, occupying a chair at his right hand. Dr. George E. Ranney, of Lansing, Secretary, and Dr. H. B. Baker, of Lansing, Treasurer, were present.

A communication from the State Homœopathic Medical Society, asking the co-operation of the State Medical Society in securing stringent laws for the prevention and punishment of the terrible crime of infanticide, was referred to Drs. Kedzie, Palmer and Chittock, who reported in substance that the State Medical Society had always condemned foeticide, considering it a crime against God and society, and a shame on our civilization; that, in the opinion of the Society, if the laws now on our statute books be enforced, they are sufficient; that the remedy lies more in portraying the frightful results of such a crime than in legal enactments; and that the State Society welcomes any and all bodies of men who desire to blot out such a crime.

Three ladies, proposed for membership, were elected—Miss Frances A. Rutherford, of this city; Miss Sibelia F. Baker, Coldwater, and Miss Ruth C. Gerry, of Ypsilanti. They are the first female practitioners ever admitted to the State Society.

The Committee on the Detroit Medical College was then called for. Dr. White then read the report, the substance of which was, that the school is in good working order, in flourishing condition, and the lectures are excellent.

Dr. Ranney read the report of the Committee on Finance, which shows the finances of the Society to be in a most satisfactory state, there being a considerable surplus of funds on hand.

A communication from the Association of Medical Superintendents of American Institutions for the Insane was read, and the resolution recommended by it was adopted, to the effect that courses of lectures on the subject of insanity should be delivered in every medical college, and that no students be allowed to graduate without a thorough examination on the subject.

Dr. Parmenter introduced a motion, which was carried, asking for a committee of three to report at the next meeting a form of law regulating medical practice, to be urged for passage by the Legislature.

The election of officers resulted as follows: President—Professor A. B. Palmer, M. D., Ann Arbor.

Vice Presidents—Drs. J. F. Noyes, Detroit; John B. White, Saginaw City; Wm. Parmenter, Vermontville, and E. Amsden,

Recording Secretary—Dr. George E. Ranney, Lansing.

Corresponding Secretary—Dr. H. B. Baker, Lansing.

Treasurer—Dr. Gordon Chittock, Jackson. Dr. Axford, of Flint, claimed that he had cured two cases of genuine hydrophobia, detailing his experience and the remedies used—opium or morphia, by means of hypodermic injections, followed by large doses of castor—asking members of the Society to test the remedies. Others followed, discussing the subject of rabies, briefly detailing their experiences and deductions.

The next meeting will be held at Saginaw City, the second Wednesday in June, 1873.

Military Tract (Illinois) Medical Association.

At a meeting of the Military Tract Medical Association, held in Galesburg, June 11, 1872, the following resolutions, offered by Dr. W. L. Cuthbert, were unanimously adopted:—

Whereas, The procuring of criminal abortion is becoming more prevalent, and in our vicinity, as elsewhere, un-crupulous specimens of human depravity—abortionists—are plying their murderous traffic; and that from the members of the medical profession the public expect an expression of their opinion in regard to this evil; therefore,

Resolved, That we recognize the procuring of miscarriage or abortion in any stage of pregnancy as criminal in the highest degree, unless absolutely demanded to save human life, and then only by the advice of two or more regular physicians.

Resolved, That we, as physicians, pledge all our efforts to assist and sustain our legislators and executives in all measures that tend to the suppression and prevention of this heinous crime, with its fearful consequences.

Resolved, That we are bound by a sense of duty as physicians and citizens to condemn the abortionist and his abettors, deeming them unworthy of our association and respect; and to use all reasonable means to expose their murderous schemes and bring them to punishment.

Resolved, That while we denounce their murderous traffic we will strive to inform the public of its train of consequences; for the violation of physical and moral laws is certain to meet its just penalty, prolonged and intractable diseases of body and mind, and often death.

EDITORIAL DEPARTMENT.

PERISCOPE.

The Pathology of Bright's Disease.

A paper of deep research was read before the Royal Medical and Chirurgical Society of London, on this topic, by Sir WILLIAM GULL and Dr. HENRY G. SUTTON. An epitome of it is given in the *British Medical Journal*.

The microscopic appearances observed in granular contracted kidney were given in detail, and their conclusions on this point were, that the visible morbid changes in granular contracted kidneys were due to the primary formation of a fibroid or hyalin-fibroid substance in the intertubular parts, including the vessels, and to atrophy of the tubular and intratubular structures of the kidney. On this point the authors confirmed the observations of Dr. Dickinson and other observers. And they further stated that this formation commenced in different parts of the kidney, commonly near the surface; but it also seemed to commence in the outer coats of the arterioles, and in the walls of the capillary vessels. From these parts it extended round the convoluted tubes and Malpighian bodies. This fibroid or hyalin-fibroid substance subsequently contracted and drew the Malpighian bodies together, compressed the urinary tubules and vessels, and might entirely obliterate them. This thickening of the capillary walls, and the diminished calibre of some of the arterioles, must naturally interfere with the nutrition of the tissues and tend to produce atrophy; and the reduction of the blood-supply to the secreting cells probably caused diminished secretory function and atrophy from diminished use. The alteration in the renal epithelium, when great, was the result of the atrophy; and its slighter changes, such as granular appearance and desquamation of some of its cells, were not peculiar to granular disease of the kidney, such slighter changes being even consequent on the process of dying.

The morbid changes in the vascular system were next considered. Dr. Bright and subsequent observers had recognized that atheromatous arterial disease was common with granular contracted kidney. In 1852 Dr. George Johnson, in his work on kidney disease, stated that the minute renal arteries were much thickened in chronic Bright's disease, owing to hypertrophy of the muscular coats of the vessels. A few years ago the same writer pointed out that the arterioles, not only in the kidney, but in the skin and other parts of the body, were thickened, and their muscular coat hypertrophied, in chronic Bright's disease. Sir

William Gull and Dr. Sutton described at considerable length the changes that they had found in the minute arteries and capillaries of the kidneys, pia mater, and other parts, and they stated that their observations showed that the minute arteries and capillaries were thickened in chronic Bright's disease, and they "gladly acknowledged the debt the science of medicine owed to Dr. George Johnson for distinctly insisting upon this fact. The microscopical observations of Sir William Gull and Dr. Sutton showed that the arterioles and capillaries were more or less altered in chronic Bright's disease. This alteration was due to a hyalin-fibroid formation in the walls of the minute arteries, and hyalin-granular change in the corresponding capillaries. This formation occurred chiefly outside the muscular layer; it also occurred, but to a less extent, in the tunica intima of some of the arterioles. The degree in which the affected vessels were altered, and the extent to which the morbid change was diffused over the vascular system of the different organs, varied very much in different cases. The muscular layer of the affected vessel was often atrophied in a variable degree. Some pathologists might consider that the perivascular canals were the seat of these hyalin-fibroid changes. On the existence of such canals they expressed no opinion; they asserted only that the morbid changes were chiefly outside the muscular layer of the arterioles. The arterio-capillary changes observed in chronic Bright's disease were not seen in the vessels of healthy persons who had been accidentally killed, or who had died of phthisis and of other diseases not allied to chronic Bright's disease.

The condition inducing the vascular change was next considered. Dr. George Johnson had stated that the general arterial thickening was due to muscular hypertrophy. He considered that the blood was impure in consequence of the kidney-disease, and that the arterioles resisted the passage of this impure, more or less noxious blood, and in doing this they became hypertrophied. The left ventricle of the heart, therefore, made an increased effort to drive on the impure blood, and the result of this antagonism of forces was that the muscular walls of the arteries and those of the left ventricle of the heart became in an equal degree hypertrophied. This theory Sir William Gull and Dr. Sutton did not accept, for their observations showed that arterial changes were not dependent on muscular hypertrophy, but on hyalin-fibroid formation. They had found the heart and vessels healthy in cases of chronic disease of the kidneys, and, further, their inquiries showed that the cardiac and vascular changes might occur independently of renal disease.

Cases given in the appendix to this paper

were next alluded to, to show that there was a general morbid state in which the kidneys might be contracted, the heart hypertrophied, and the minute arteries and capillaries altered by a hyalin-fibroid formation. The kidney-changes were most often, but by no means always, part and parcel of this morbid state, and their absence showed that the renal changes were not an essential and indispensable part of the general process; but as the vascular system was at some part affected with this hyalin-fibroid change in all the cases, therefore they concluded that the vascular disease was to be regarded as the constant and essential part of this morbid state.

The pathology of this hypertrophy of the left ventricle was next considered. Bright considered that the quality of the blood was altered by the kidney-disease, and that the heart, in consequence, had to contract with greater power to force the morbid blood through the vascular system, and became hypertrophied in order to accomplish this. Many pathologists had adopted Bright's explanation. Dr. Wells, in 1853, suggested that the hypertrophy might be dependent on atheromatous changes in the vessels. Against the explanation offered by Bright and others, the authors stated that the frequent association of cardiac hypertrophy and renal disease did not prove that there was a casual relation between these two morbid states. Moreover, in many cases where there was chronic disease of the kidneys, and the blood therefore presumably impure, the heart was not hypertrophied; as in cases of large white, lardaceous and serofulous kidneys, as well as some cases of granular contracted kidneys. Dr. Johnson had endeavored to account for the absence of the hypertrophy in such cases, by assuming that the muscle of the heart was imperfectly nourished. The authors stated that this might explain a dilatation disproportionate to the hypertrophy, but it did not explain how a heart of normal size acquired additional force requisite to overcome the supposed obstruction. Evidence was next brought forward to show that the cardiac hypertrophy was induced by the morbid changes referred to in the vascular system, the heart being found hypertrophied in all the cases in which the vessels were much and generally thickened by hyalin-fibroid change—slightly hypertrophied where the vessels were little thickened, and greatly hypertrophied where the vessels were much thickened, although there might be little or no kidney disease. The hyalin-fibroid change was assumed to impair the elasticity of the vessels, thus imposing upon the left ventricle a necessity to contract with greater force to carry on the circulation. The other conditions which made up the morbid state known as chronic Bright's disease were next noticed, namely, vesicular emphysema, retinitis albuminurica, atrophied brain, contracted spleen, and morbid changes in the intertubular parts of the stomach. In all these conditions, the arterioles were more or less thickened by fibroid or hyalin-fibroid changes. This general morbid state be-

longed principally to the period of life at or after forty years of age; and after forty its frequency greatly increased as age advanced. The kidneys, even in children, or in other young persons under adult age, were sometimes much contracted, and death caused by uræmic poisoning, without the cardio-vascular changes alluded to. But the general hyalin-fibroid change in the vessels might occur in early life; and, in proof, the case of a girl aged nine years was mentioned, where the kidneys were granular and very contracted, the heart hypertrophied, and there were hyalin-fibroid changes in the arterioles of the pia mater. In the state known as chronic Bright's disease with contracted kidney, the morbid changes described did not arise in a constant order. In some cases the changes seemed to commence in the kidneys or in the heart, sometimes in the lungs or in the brain, or in other organs; hence the symptoms of the disease varied very much in different cases. In all cases, whether many or few organs were affected, the minute arteries and capillaries were altered by hyalin-fibroid formation, attended with atrophy of the adjacent textures. The authors could not regard the functional disturbances which occur in many organs during chronic Bright's disease with contracted kidney as dependent on blood changes only or chiefly, as, for instance, pain in the head, discomfort after food, palpitation, dry skin, epistaxis, etc. These were probably due not so much to changes in the blood as to changes in the tissues themselves.

The conclusions arrived at in the paper were briefly as follows: 1. There is a diseased state characterized by hyalin-fibroid formation in the arterioles and capillaries. 2. This morbid change is attended with atrophy of the adjacent tissues. 3. It is probable that this morbid change commonly begins in the kidney, but there is evidence of its beginning primarily in other organs. 4. The contraction and atrophy of the kidney are but part and parcel of the general morbid change. 5. The kidneys may be but little, if at all, affected, whilst the morbid change is far advanced in other organs. 6. This morbid change in the arterioles and capillaries is the primary and essential condition of the morbid state called chronic Bright's disease with contracted kidney. 7. The clinical history varies according to the organs primarily and chiefly affected. 8. In the present state of our knowledge we cannot refer the vascular changes to an antecedent change in the blood due to defective renal excretion. 9. The kidneys may undergo extreme degenerative changes without being attended by the cardio-vascular and other lesions characteristic of the condition known as chronic Bright's disease. 10. The morbid state under discussion is allied with the conditions of old age, and its area may be said hypothetically to correspond to the *area vasculosa*. 11. The changes, though allied with senile alterations, are probably due to distinct causes not yet ascertained.

On Atrophy of the Heart.

In a lecture published in the *British Medical Journal*, Dr. THOMAS SHAPTER says:—

An impulse, feeble and very limited in extent, sometimes exists, with an evidently very deficient area of percussion dullness, both superficial and deep, and this evidently without any emphysema or other cause to interfere with the correctly ascertaining that the size of the heart is abnormally diminished. The cardiac sounds are everywhere at a minimum; but, if heard, may be a little sharper in tone than natural; the pulse is small and deficient in force. This state of things indicates a condition of muscular atrophy. If there be frequency and some palpitation in the heart's action, it is probably due to the atrophy being caused by, or associated with, a generally depraved condition of the blood, as in tubercular degenerations or carcinoma. In these cases the heart is not only diminished in size, but its fibres are degenerated, being pale, soft, and deficient in firmness. This may be simply caused by an anæmic state of the viscus, but it is more commonly due to a fatty degeneration of the fibres, and which is evidenced, not by the deposit of separate fatty masses, but by the heart exhibiting both on its external and internal surfaces the appearance of buffy spots; and, as Dr. Quain summarily states "paleness, softness, peculiar mottling, and friability of texture." This fatty degeneration not only causes weakness, by its metamorphosis of fibre into fat, but may also, in some rare instances, cause diminution in bulk.

This state of atrophy may be simple, as seen in phthisis and carcinoma, or in diseases where there is a general wasting of the muscular structure of the body; or it may be due to the specific wasting associated with pericardial adhesions, occurring not infrequently after the acute form of pericarditis; or it may be due to the specific metamorphosis of the fibres. These conditions of the heart, now weakened in power, and diminished in bulk, offer important and fatal indications.

It is not easy in these several cases of anæmia, of simple muscular atrophy, or of fatty metamorphosis, to discriminate one from the other solely by the physical phenomena exhibited by the heart. We must seek to determine the precise form of affection rather than the general symptoms; but these, with their etiology, had better be referred to when considering the morbid states of the heart, in the category of structural diseases next to be described, which comprises the morbid structural changes specified above, but unaccompanied by any diminution in the heart's bulk.

This category includes the very important range of cases, as regards diagnosis, in which the heart, though the impulse be feeble, is not enlarged nor involved in any surrounding or contiguous dullness, in which the indications are that the heart, though weak, is, in fact, of the normal size.

These cases may be due to structural, or only to purely dynamic, causes. Between these two classes of cases it will be well to discriminate, and then to find out in the latter where we may anticipate neither danger nor cause for alarm; i. e., the existence of a normal condition, or of functional debility only. The character of the impulse, when the heart is feeble and small in size, has just been described. Should this character be well marked, though there be no indications of a want of proper bulk, and there be, in addition, an impulse always reduced in strength, and only very rarely exhibiting a visible *ictus*, and this rather having the appearance of an undulation than of a beat; while the sounds, the first being sharp and flapping, the second very thin, are generally very weak and toneless, and entirely free from any complication of murmur; with a pulse irregular in force or rhythm, but for the most part slow, we may surmise there is muscular weakness. Should the pulse be rather fast than otherwise, this weakness is then probably due to a state of anæmia. If, under these circumstances, the impulse of the heart, though generally feeble, be occasionally characterized by a forcible beat, it is very probable these conditions are associated with a concentric hypertrophy of weakened tissue. Should we, however, find these specific indications of muscular or anæmic weakness greatly exaggerated, so that there is a variable impulse, always feeble, but with the character of a fluttering unsteadiness, indicative of great variability both in force and rhythm, at times even jerking and abrupt, and with the heart, as it were, largely projected forwards; the first sound flapping, short, weak, and toneless, and then obtuse and dull; the second weak and thin, no murmur, no jugular pulsation; the pulse at the same time weak and irregular, with loss of power, and little or no tendency to general or local arterial or venous congestion; if with all these the apex-beat, though difficult to define, be yet more distinct than in the cases of muscular or anæmic weakness, we may infer the presence of debility from fatty metamorphosis.

The general symptoms characterizing the two categories of disease above referred to, viz., debility of impulse, with diminished or with normal size, are those of physical weakness and easily induced breathlessness. In muscular atrophy the feeling of weakness is immediately experienced on the exercise of any undue exertion; and the patient, for the most part, shows a disinclination to submit himself to the test. In anæmia there is a more general depression of vital force, and the breathlessness is more marked and more persistent than in simple muscular weakness. It is essentially a disease of young life, and associated with the nervous and hysterical temperaments, and is met with more commonly in females than in males. By far the greater proportion, however, of these cases of weak impulse are due to a fatty degeneration or metamorpho-

sis of the muscular fibres; and this, unlike that of anæmia, is rather a disease of males than of females, and in them occurring at a more advanced period of life, being rarely met with in those under forty years of age. It is less a disease of the laboring classes than of the well-fed. This, probably, is to be explained by the heart in the former, if predisposed to this form of degeneration, early taking on the character of hypertrophy or dilatation; but in whatever class it may occur there will be found associated with it a pale, flabby skin, indicative of the constitutional tendency. When a state of fatty metamorphosis of the heart exists, the countenance is usually pale and sallow; sometimes the lips are livid, generally deficient in the natural color; the tissues are soft, the manner is languid, the temper is apt to be dejected, and there is a sadness and melancholy foreboding not commonly met with in many other affections of the heart; muscular power is deficient and soon exhausted, and the effort to exertion is not very promptly aroused; there is evidently a depression of vital force; the appetite is feeble, digestion is weak and flatulent. In advanced cases there is marked uneasiness across the loins, and the feet and ankles show slight œdema; cardiac uneasiness, at times passing into pain, often supervenes, with occasional sensations of a palpitation, or rather flutter; and if this increase, often accompanied by a choking feeling, somewhat of the nature of a globus hystericus. The respiration is irregular, often hurried, and frequently sighing. When the right ventricle is prominently the seat of weakness, the respiration may present peculiar characters, as described by Dr. Cheyne (*Dublin Hospital Reports*, vol. ii, p. 217), in which a protracted period of apnœa is slowly recovered from to be followed by a few hurried respirations. The apnœa, as shown by Dr. Reid, is associated with an increased cardiac action, as evidenced by acceleration of the pulse, followed by remissions during the hurry of the breathing. In the case described by Dr. Cheyne, the several phenomena occupied about a minute, and occurred in a case of advanced disease. It is probably a symptom solely due to very advanced disease. In extreme cases the memory often is notably impaired; and mental efforts not only exhaust but induce irritability, and are not without risk to life. The tendency to feel faint becomes more marked, and is often accompanied with a distressing and alarming vertigo, and this vertigo sometimes heralds a more decided disturbance of the nervous system, so that something of the nature of a convulsion may take place. It does not present the features of an epileptic convulsion, but rather of a violent spasmodic struggle for life.

It has been advanced by Mr. Canton, that the appearance of the arcus senilis is concomitant with, and as such to be considered a symptom of, fatty metamorphosis of the heart. My own observation does not lead me to confirm this view. I have seen many

cases of fatty degeneration where it has not occurred, while in many in which it has been strongly marked there has obviously not been the least tendency to a fatty metamorphosis.

It is obvious, from the nature of the symptoms, and the anatomical condition of the heart which produces them, that the prophylactic management of these cases mainly consists in quiet, in the avoidance of all excitement, bodily and mental, while the system generally is sought to be improved and invigorated by fresh air and a generous diet.

The medical treatment, as indicated by the evident feebleness of the general system, and of the heart in particular, finds employment in light preparations of iron, in antispasmodics, and stimulants; the occasional use of mineral acids with digitalis is often most beneficial; and, at times, sedatives, in the forms of opium, hyoscyamus, hydrocyanic acid, and chloroform, are useful. The associated attacks of vertigo or faintness must be met by the stronger restoratives of æther, ammonia, or brandy.

On Fracture of the Femur.

Dr. F. D. LENTE, of Cold Springs, N. Y., says on this topic, in the *New York Medical Journal*, March, 1872:—"Within the last two years a very important modification of the treatment of fractured femur has been introduced, the advantages of which, in *simple fracture*, have been most prominently set forth by Professor Sands and Dr. Bryant. Both speak in the highest terms of the success of the "plaster-of Paris splint," and present incontestable evidence of its excellence, in the statistics which they publish. The application of the plaster-bandage, however, and the preliminary arrangement of the patient as described, though sufficiently simple for those engaged in the constant use of surgical appliances, will, no doubt, appear more troublesome and complicated to the general practitioner, who is in the habit of treating only occasional cases of fracture, than the apparatus of Buck, in the application of which the merest tyro in surgery can scarcely fail to succeed, and which, with any decent degree of watchfulness and skill on the part of the surgeon, leaves little else to be desired in the majority of cases. Still, the plaster-splint, in its application to the *femur*, as in other applications, has a certain attractiveness, which will lead many surgeons to adopt it; and, in certain cases, where exercise and fresh air are of special importance, and where the conveyance of the patient from one locality to another is necessary, will undoubtedly prove superior to all others.

I would suggest that the patient be placed on a long table, or on a broad board of sufficient length placed on a table;* that three

* He may, if more convenient, be laid on a single bedstead without a foot-board, or a "bunk" made for the occasion.

layers of old blanket, or an equivalent of flannel, be placed on the injured side, between the genitals and thigh (not over the *perinæum*, which is entirely out of the way), extending down several inches upon the latter; that over this be placed the counter-extending band, consisting, as most readily accessible, of a strip of strong, unbleached muslin about six inches wide, folded twice upon itself longitudinally, and long enough to pass above and below the body to above the shoulder, where it may be tied in a knot. This is to be secured either to the upper end of the table or board, as the case may be, or attached to a cord and fastened to a staple in the wall, or some such fixture which may happen to present itself. The limb having now been drawn out to its proper length, as ascertained by *actual measurement*, is to be protected by carrying a flannel roller from the toes to the groin, and around the pelvis. Before carrying it about the latter, this must be raised a few inches from the table. To do this conveniently, carry a band folded like the counter-extending one, but wider, around the pelvis, just above the greater trochanter; tie in a knot about eighteen inches above the body, pass a stick under it, by means of which an assistant, standing on the table astride the pelvis, may easily raise it to any required height. If it be preferred, or in case the table is not sufficiently firm to bear the weight of an additional person, the body may be raised, and kept at a convenient height by a simple mechanical contrivance always at hand. Place a piece of board four or five inches wide, and long enough to reach a couple of feet or so above the table, so that one end will rest on the floor on a line with the pelvis, and at a distance of a foot or so from the table, to be held temporarily by an assistant; place a similar piece with one end resting on the upper extremity of the first; this is to be used as a lever for raising the body from the table; and the pelvic band must be so attached to it that, when it is raised to a parallelism with the table, the pelvis shall be at a convenient height above the latter, which need not exceed a few inches. To maintain the lever in this position, place under its extremity a vertical prop similar to the first-described piece. The pelvis *will then be swung clear of the table, as upon a gallows*. Extension may now be made.

If weights be used, the extending cord may pass over the top of a chair-back, the chair being kept firm by a suitable weight on its seat. If adhesive plaster be used for extension, each band opposite the *malleoli* had better be folded upon itself longitudinally, so as to make it as narrow as possible, in order that it may interfere as little as possible with the proper covering of the foot by the turns of the roller. It is stated that only modeler's plaster should be used; but this is seldom to be procured in small villages and in the country; it is therefore well to know that *any fresh plaster-of-Paris* will answer, though the coarser variety may

be longer in "setting," which process generally requires at least half an hour, and from one to two hours to become perfectly hard and dry.

Case of Uterine Tetanus.

An example of this uncommon accident is reported by Dr. J. TRUSH, in the *Cincinnati Medical Repertory*.—

On the 4th of October came into the lying-in-department of Prof. Carl Braun, a woman aged 35 years, at the full term of her seventh pregnancy. Three days later labor set in; the attending midwife examined the patient, found the presentation somewhat abnormal—the head and one hand presenting—and at once reported this to the professor's assistant, adding that the membranes were intact, and the pains light. The assistant, being on his usual morning rounds through the wards, did not consider the case of sufficient urgency to forbid finishing the visit, and hence proceeded. In a few minutes, however, the midwife returned with the statement that, during her absence, rupture of the membranes had taken place—said to have been occasioned through examination by some enterprising student—and that now the right shoulder was the only presenting part, the head having passed up into the left iliac region, the back being anterior, towards abdomen of mother. The assistant now lost no time, but repaired at once to the bedside of the patient, found the position of the child as reported, and in addition that the uterus was in a state of tetanic contraction, so that turning without chloroform was not to be thought of. The patient was, therefore, placed thoroughly under the influence of this anæsthetic, with the effect of producing a very slight relaxation of the uterus, barely sufficient to enable the operator, after a protracted effort, to get hold of a foot; in bringing this down into the vagina, the arm corresponding to the presenting shoulder and the cord also followed. Traction, strong traction was now made from the foot, while the shoulder and head were pushed upward with the expectation of being able to complete the version, but all to no purpose, the uterus held its contents with a grip of iron. By this time, too, the pulsations in the prolapsed cord had ceased, the child was dead.

Not deeming it prudent to institute further operative procedure without first informing Prof. Braun of the state of affairs, this gentleman, on being informed, said that he would look after the patient himself. In an hour or so he came, found uterus as firmly contracted as ever, and conditions in other respects as described. He expressed the opinion that decapitation of the child was the safest and quickest method of relieving the mother. This operation he expected to execute in the following manner: he would introduce his left hand into the vagina, push thumb and one or more fingers onward into the uterus, grasp the child's neck, and, under guard of the fingers, apply the decapi-

tating hook—Stumpfer Schlusshacken—to the neck, luxate the spine, and twist off the soft parts; extract the child's body and last its head.

The patient was now again chloroformed. Before resorting to the hook, however, the Professor tried to complete the version, but with no better success than his assistant; he therefore proceeded to operate as above indicated. He introduced his left hand, tried to get hold of the child's neck, but failed; six or eight times he repeated the attempt with a like result. The child's head was pressed so firmly upon its chest that the hand could not pass between them up to the neck, which latter was curved upward and forward against the abdominal parietes of the mother. What was to be done? The mother must be delivered somehow or other. Perhaps if the arm and cord were not in the vagina, the proposed operation might yet be possible. These parts, therefore, were removed, the arm with shoulder, by means of the decapitating hook. This operation also opened the thorax of the child. Once more a strong pull was made from the presenting foot, conjoined with external manipulations, and see, the breech of the child moves downward, and is brought into the world in a few seconds; but the head will not follow, it is still a prisoner in the uterine cavity, the outlet of which can be felt encircling the neck of the child like an elastic cord. However, after a pause of some ten minutes, the Professor succeeded in delivering the head also. The placenta followed in a few minutes. The whole operation had lasted upwards of an hour, perhaps an hour and a half, during which time the patient had been constantly, most of the time profoundly, under the influence of chloroform.

Treatment of Otorrhea.

Professor SEELY, of Cincinnati, says, in *The Clinic* :—

As regards the treatment of otorrhea, both in children and grown persons, the chief desideratum is the thorough cleansing of the ear.

Syringing is by no means always sufficient, in fact many times seems to be *absolutely injurious*. The secretion can be blown out by inflation either by the catheter or by Politzer's method, or washed through the Eustachian tube into the throat, by filling the ear with water and making pressure on the tragus, or washed the other way by passing the water through the meatus, inflating at the same time that the patient swallows, while the head is inclined at the same time far to the diseased side. The use of the probe and cotton will be found of great service also, especially when the parts need to be dry for the application of remedies, as in polypus and polyposid conditions of the membrana tympani.

While all the astringents are used for otorrhea, I would especially recommend zinc, both the sulphate and acetate, and nitrate of silver. My advice is always to begin with a

weak solution ($\frac{1}{4}$ to 3 grs. ad. f.3j. twice or three times daily), not only because it is often sufficient, but because a stronger solution may cause pain and thus terrify the patient, and prevent further applications, and also actually do harm instead of good, if not preceded by a weak solution to accustom the parts to the contact. I need not say that frequently it will be necessary to change from one astringent to another.

We have in otorrhea a larger or smaller perforation of the membrana tympani, the purulent fluid coming from the middle ear. Certainly neither parent, nor doctor, in his right mind, would allow such a stinking discharge to run on from any other part of the body, and in a purely sanitary point of view, its neglect is beyond comprehension.

Again, how can it be expected that the ear will become sound until the perforation or perforations (as they may be multiple) have healed, and of course the longer the discharge continues, the more difficult is it for this to occur. Every one should then put before him as the goal to be reached in the treatment of otorrheas in children, *the healing of the perforation*.

So great importance is attached to the soundness of the drum-head, that both many patients and not a few physicians, are unwilling to admit that there is a perforation.

Again, in cases of very great deafness with discharge, the reigning idea seems to be that the membrana tympani is *totally destroyed*.

While the membrana tympani is of very great value in an acoustic point of view, it also plays an all-important rôle in protecting parts of still more value, the soundness of the two fenestral membranes being of still greater importance. Bear these points in mind, and all the mystery of hearing with a perforated membrane, of very bad hearing with a very extensive loss of the membrane, capable of being made very good, will be solved.

If a perforation remains unhealed, the ear is left in an *unhealthy* condition and you can never tell when the disease may reappear. Then remember the membrana tympani in its tutaminal function, its *protecting* rôle, and endeavor to make it perfect.

Strangulated Hernia.

In a lecture on the above named subject, delivered at St. Bartholomew's Hospital, and published in the *British Medical Journal*, Sir James Paget remarked that in hospital and private practice together he had operated a hundred times for strangulated hernia, but that to obtain conclusions of real value it would need a tabulation of at least a thousand cases.

Generally speaking, in a case of hernia with signs of strangulation present, if reduction by ordinary means cannot be accomplished, an operation should at once be performed; in some cases, although the hernia is irreducible, the symptoms of strangulation are slight, obscure, or incomplete. It is an easy rule for all these cases

that you should operate when strangulation is suspected: this rule you must avoid, and learn the hard one, to discriminate the cases that require operation.

The irreducibility of the hernia is a fallacious sign of strangulation, and the presence of the other local signs, even in a marked degree, is not decisive of strangulation, and is not sufficient to prove the need of operating when the remoter signs are not present.

The local characters usually present in a strangulated hernia, and sometimes the remoter signs, may be imitated in an inflamed hernia, which is not strangulated. Generally, in the inflamed hernia, without strangulation, the local signs precede and greatly predominate over the remoter and general signs; while, in a hernia which is inflamed after becoming strangulated, the remoter and general signs will still predominate over the local, and the history will tell that they preceded. If these means of discrimination fail, you must operate if you cannot easily reduce the hernia; the risk of operating is small in comparison with that of waiting, for an inflamed and irreducible hernia may at any time become strangulated.

A hernia that has come down quickly, the more it exceeds its usual size the less is the probability of its being reduced without operation.

Again, the harder, more tense, and painful a hernia is, the less the chance of reduction without an operation.

Again, if the remote and general signs of hernia are present, and the hernia cannot be reduced, you must operate; or, if there be a swelling which may be a hernia, though it seem not likely to be a strangulated hernia, the operation must be performed at the seat of swelling.

If a patient have two herniæ that are irreducible, with signs of strangulation, and you cannot tell which is strangulated, you must operate on both.

One or more actions of the bowels, after symptoms of strangulation have set in, are of no weight against the propriety of operating; even frequent and regular action is not an absolute prohibition, as strangulation may involve only omentum, or only a part of the circumference of a portion of the intestine.

As a rule, while the bowels act you should not operate unless all the other signs of strangulation are well marked.

The sign we should most rely on as commanding the operation, is vomiting. The rule is safe that recent irreducibility and vomiting are enough to justify the operation, even though there be no other signs of strangulation present. While there are notable kinds of vomiting characteristic of strangulated hernia, we should not be misguided by waiting for any particular kind. Any kind of vomiting, if it be repeated, is enough to justify operation in a hernia recently become irreducible.

Cessation of vomiting in the extreme condition of strangulated hernia is a token of

evil rather than of good, if general improvement do not coincide with it. The pulse is 80 or 90 in a majority of ordinary cases in the early stages, and becomes more rapid as the symptoms of strangulation become more marked; the respirations usually are in due proportion to the pulse.

The Antiseptic Treatment of Small-pox.

At a late meeting of the College of Physicians, of Ireland, Dr. GRIMSHAW said he had tried the antiseptic treatment in several forms of febrile disease, including scarlatina, typhus and typhoid, with comparatively unsatisfactory results. In small-pox he had followed this system of treatment in between thirty or forty cases. Twenty-three patients had sulpho-carbolate of iron. In ten of these, there was every reason to believe that they would have recovered naturally. Of the remaining thirteen, three died; two of these cases were of the purpuric type, and the third was confluent. In addition to antiseptics, Dr. Grimshaw used stimulants on some occasions freely. Much success attended the administration of perchloride of iron. Of the local affections of small-pox, the laryngeal complication was the most dangerous. It was best treated by moderate leeching, poulticing, the inhalation of steam, and cauterization of the fauces. Delirium was sometimes furious, and then physical restraint should be adopted as the most merciful plan of treatment. Purpura and hemorrhage were not invariably fatal, though very often so. The most successful treatment consisted in the free employment of stimulants combined with turpentine and ergot of rye. Xylol had been given in another case with favorable termination. Confluent cases in vaccinated persons were not so formidable as many non-confluent cases in the unprotected, for in the former suppuration seldom took place.

Dr. Hayden had not been satisfied with the results of antiseptic measures. Being disappointed with sulphurous acid, he had fallen back on the tincture of the perchloride of iron. He considered that many cases proved fatal from asthenia, at the period of the commencement of secondary fever. In such instances, the heart would probably be found much altered. Delirium would be relieved by the application of a leech to each temple, and by the combination of twenty-grain doses of bromide of potassium with morphia in small quantities. Chloral had failed in his hands. Seventeen hemorrhagic cases had come under his observation; among them there were four recoveries, and in the latter the patients had been generally treated with perchloride of iron.

Dr. H. Kennedy spoke in favor of the antiseptic treatment. Among remedies of this class he would include food, stimulants, the mineral acids, and perchloride of iron. He thought the sulpho-carbolates were contraindicated in small-pox from their depressing effect. Sulphurous acid was an invaluable remedial agent. He employed it com-

bined with sulphuric acid and opium. Two cases of hemorrhage with purpuric spots had occurred in his private practice. Of these, one recovered. Hence great caution should be exercised in giving purgatives in small-pox, more particularly about the tenth or twelfth day of the disease, for absorption was promoted by depletive measures.

Mr. John Hughes alluded to the discrepancy in the definitions of confluent small-pox. The eruption should be generally confluent over the trunk as well as on the face and extremities, to constitute that form of the disease.

Dr. Lyons said that putrefactive changes rarely occurred in the living human body. The purulent formations in small-pox were not putrefactive. He regretted that the word "antiseptic" had been so loosely used in the discussion.

Dr. Gordon had employed sulpho-carbolic acid of sodium extensively in small-pox, and particularly in cerebral and pulmonary congestions. Two prominent symptoms showed themselves after the administration of some doses; namely, a marked diminution in the rate of the pulse, and a decided reduction of the temperature. In the throat-complication he placed most reliance on slight leeching, followed by the repeated application of poultices. Perchloride of iron was most valuable in purpuric and hemorrhagic cases.

On Circumscribed Inflammation of the Auditory Canal.

In a lecture on this subject, published in the *New York Medical Record*, February 1, 1872, Dr. D. B. ST. JOHN ROOSA says:—

Circumscribed or furuncular inflammation of the external auditory canal is quite a common affection, and I imagine there are many more cases of this affection than is shown by the statistics of the writers on otology, inasmuch as it is not a serious affection in its consequences, and very often gets very little treatment. The subjective symptoms of a furuncular inflammation of the external auditory canal are pain and a sense of fullness in the ear. There is scarcely ever any *tinnitus aurium*, for the reason that the circumscribed swelling makes no pressure upon the membrana tympani and ossicula auditus, which pressure is usually the cause of the sounds in the ear described under the term of *tinnitus aurium*. On examination we find roundish isolated swellings, that are very tender and sensitive to any contact. Even the touch of a delicate probe will sometimes cause patients to make an exclamation of pain. These swellings are not usually very red; for the integument is quite thick in the outer portions of the canal, and this is the usual site of the affection. We often find two points of pain and swelling in the same ear, and they are very apt to occur in succession, so that we are by no means sure of being done with a case because one furuncle is cured. The swellings that occur in the lower portion of the canal, the bony portion, which is two-thirds of the

whole length, are not usually circumscribed, but diffuse, and are therefore to be classified under that head. They are more painful than furuncles, from the fact that the integument is thinner, and closely adherent to the periosteum, so that such an inflammation is analogous, in the fearful pain which it occasions, to a paronychia, and requires the same treatment, that is, a free incision through the tense and swelled structure down to the bone. I should also say that the pain experienced in swallowing, chewing, and the like motions, from the pressure of the upper jaw, through the glenoid fossa, upon the swelled auditory canal, is one of the symptoms of which patients with either the diffuse or circumscribed forms of external otitis complain very much.

The causes of furuncular inflammation of the outer ear are not very plain. Like furuncles in the other parts of the body, they are often an evidence of a deteriorated condition of the general system; but again they occur where the subjects are in good general health. In such cases some local irritation by mechanical or chemical means, such as have been mentioned in the discussion of diffuse inflammation, is probably the cause.

The general treatment will be determined by the condition of the patient. The local is simple; a deep incision should be made into the swelling, if any one very tender point can be found. It is a matter of indifference as to whether suppuration has or has not occurred in deciding, as to the expediency of an incision. It should be made as soon as the case is made out. Leeches do very little good in furuncular inflammation. After the incision the ear should be douched every fifteen minutes or half an hour, by means of Clarke's ear douche, until the pain is relieved, when it may be used at intervals. The ear should also be cleansed by means of a syringe and the cotton-holder, of which we make so much use in aural therapeutics.

The thorough cleansing will usually relieve the impairment of hearing caused by the swelling and closure of the canal, while the incision and douche will cut short the pain. Each new furuncle is, of course, to be healed in the same way.

The Use of the Taxis in Hernia.

The *Georgia Medical Companion* has an article on this subject, by Dr. C. F. GAY, from which we make the following extract:

In case of an old hernia, since the inflammation would be less acute, the patient could be left several days with entire safety, if in the supine position, and with ice or some refrigerating lotion, or perhaps, better still, fomentations with cloths wrung out of hot water applied over the inflamed parts, but, of course, the duration of the time when safety would cease and danger begin, must depend upon the general symptoms, together with the amount of local inflammation present. I shall be justified in stating that the judi-

cious surgeon will never operate simply because the hernia is strangulated. The majority of cases may be relieved without incurring the danger of an operation. Although aware, as I am, that this statement conflicts with the views of authors and the teachings of the schools, I think I shall be able to refer to cases that have occurred in my own practice, and observed in the practice of medical friends with whom I have been associated, illustrative of, and pointing clearly to the truthfulness of what I herein assert. No infallible rule can be laid down, having reference to the manner of applying the taxis, or governing the position of the patient. The rules heretofore suggested are entirely too arbitrary. The management of any single case must stand upon its own individual merits. He who possesses most tact will best succeed. He who has no tact, and there may be such, had better never try to reduce a hernia.

Nothing better than the rules laid down by authors, if I except rules that are arbitrary, can be suggested, that I am aware of, in reference to the method of employing taxis. I might, however, be allowed simply to suggest that often it would be wiser, in grasping a hernial tumor for the purpose of its reduction, to *pull* upon it rather than *push* upon it. In other words, while making gentle pressure over and around the tumor with the hand, if the tumor be of sufficient size to be grasped by the hand, gently drawing away the contents from the point of stricture. * * * * *

The position of the patient is worthy of consideration in all cases where the taxis is employed. In this regard authors who have heretofore taught that the supine position, either upon a hard mattress or the floor, with the hips elevated, or that the patient should at times be turned topsy-turvy, these being positions prerequisite to success, have failed, I think, to teach the whole truth, as experience and observation demonstrates. There are other positions of the body equally essential to success as those above enumerated. The *upright* position is one of them, and the *semi-prone* position is another.

I have succeeded in reducing hernia, after I had failed with the patient placed in all other positions, save the upright and semi-prone positions, by placing the patient upon his side with the thighs flexed upon the body. I have in this position reduced a hernia almost instantaneously, after long trial in other positions. I have never yet succeeded, by turning the patient topsy-turvy, in reducing hernia. I once resorted to this method for experiment, after an operation. The stricture I had divided with the knife; there seemed no obstacle in the way of the return of the bowel, but the bowel did not return, even when the patient was placed almost in the vertical position, with the head down.

I have twice or thrice, after the patient's system had been relaxed, taken him by the legs, after the manner taught in the books, dragging him with his head down while his

legs were over my shoulders, and have almost exhausted my strength in this way, to no purpose. Never, in a single instance, have I met with any success by this manner. It is not at all strange that those who have commenced practice with the belief that such a position is proper, should be slow to place any faith in the efficacy of the opposite, or *upright* position.

The Characters of the True Respiratory Murmur.

Dr. JAMES R. LEAMING remarks as follows, in the *New York Medical Journal*:—The ear accustomed to auscultation, after a few moments of concentration of the attention upon the respiratory murmur, will recognize its dual composition. If the chest be perfect in condition the tidal-air sound will be heard in inspiration only, soft and short, like breathing gently through the closed teeth, while the true respiratory murmur will be continuous, increasing in fullness in inspiration, and diminishing in expiration. It is of low pitch, and is like the roaring of the sea at a distance, the waves breaking on an even shore of sand; or, better still, like the sound made by bees in cold weather, when the hive is tapped with the finger. It is like the innumerable vibrations of the wings of bees, increasing to maximum in inspiration like the coming waves on the sea-shore, and decreasing in expiration as they recede. If the breath be held, this murmur may be heard without admixture, for there can then be no bronchial murmur. The sound is the susurrus of the delicate muscular fibres of the true respiratory system, contracting and relaxing over the dilating and resisting residual air. If the breath be held after a full inspiration, the murmur will be at its maximum; if it be held after expiration, it will be at its minimum fullness. It cannot be exaggerated, as has been said of the so-called vesicular murmur. If the true respiratory system be unduly dilated it loses its power to contract on the residual air, and the murmur wholly ceases. This is a sign of emphysema, and is proof of the muscular cause or origin of the sound, which may return again after rest.

This murmur only commences to be developed in the child at eight years of age, becomes recognizable at twelve, but is only fully developed at maturity. A beginner in auscultation may recognize true respiratory murmur in a good subject with ease. But, when the chest has lost its excellent quality as an acoustic chamber by physical changes, resulting from inflammation, or when, from disease of the lung itself, the natural respiratory murmur has been altered or lost, or when the chest, although in its natural conditions, may be covered by thick and hardened muscles, the trained expert ear only can arrive at diagnostic truth.

Many love and enjoy music, and may assist in producing it, but the trained expert alone can lead an orchestra, and harmo-

nize each instrument into a body of perfect song.

These facts, instead of being a matter of discouragement, should induce beginners to pursue auscultation with untiring assiduity, knowing that the end will crown them as masters in physical diagnosis. The ability to recognize true respiratory murmur under any conditions, to analyze its quality, and measure its power, gives its possessor the means of knowing even the approach of that most insidious disease, phthisis, and suggests the methods of prevention.

Treatment of Blenorrhœa of the Lachrymal Sac.

Dr. N. BETHUNE illustrates, in the *Canada Lancet*, the treatment he adopts in this troublesome affection, by the following cases:—

1st. Miss A. B., æt. 50. Three years ago she first noticed a "weakness" of the right eye, soon followed by congestion and subsequent inflammation of the conjunctiva, with burning pain, and discharge (probably catarrhal). After applying poultices and lotions, the inflammation subsided, but the eye continued weak and watery, so much so as to require the constant application of a bandage for five months, and seclusion indoors. When she first came under my notice, in July, 1869, the conjunctiva of the right eye was somewhat injected and watery, and there was an evident puffiness below the inner canthus. The lower canaliculus was divided, and after being allowed to remain quiescent for two or three days, a probe (No. 3 Bowman) passed in the direction of the *ductus ad nasam*, was with great difficulty insinuated through a stricture in that canal. The same probe was subsequently passed with much less difficulty for a fortnight (twice a week), after which time larger probes—up to No. 6 Bowman—were gradually introduced up to the sixth week, when my attendance ceased. From that time—now more than two years ago—she has suffered no inconvenience whatever, and considers herself perfectly cured.

J. J. C., æt. 28, of a robust constitution, had suffered from stricture of both nasal ducts for a period of fifteen years.

When thirteen years of age he noticed a free discharge of tears over the cheeks during the winter months. In summer he felt very little annoyance. Pressure over the lachrymal sac always caused an evacuation of water and mucus through the canaliculi. The stricture on the left side was complete from the first; but for a period of several years he could by gentle pressure force the tears downwards into the nose on the right side. These symptoms followed close after a cold resulting from exposure during a storm in December, 1869. When this patient first came to me, I slit up both canaliculi of the right side. After allowing a few days to elapse I passed a small probe through the nasal duct of the same side, which, as I previously remarked, was not completely ob-

structed. I then passed the larger division of Weber's biconical sound forcibly through the constriction, thus establishing a free channel into the nose. Great relief followed this operation; some time subsequently, however, the channel still remaining somewhat impeded, I introduced Stilling's knife, and notched the stricture in three different directions. Strange to say, the patient did not consider either of these operations at all severe, for they are usually very painful. Two days after the cutting operation, he was able to appear in public without any discoloration of the integument or any subsequent discomfort; in fact, the cure of the stricture was complete and required no further treatment. So much, then, for the right nasal duct, and now for the left.

During the summer of 1870, the patient, not being troubled, thought little of the stricture of the left side; but the cold winds of winter drove him once more to seek relief in an operation.

This stricture was complete, and the patient felt some slight apprehension of the probing, inasmuch as some years previously an attempt by another surgeon to force a passage had resulted in the formation of an abscess in the lachrymal sac. However, a plan of treatment precisely similar to that employed so successfully in the right, was in the left, followed by an equally flattering result. He can now (Dec., 1871) pass hours exposed to the cold winds of a Canadian winter without the slightest lachrymation.

Nature and Treatment of Spontaneous Inversion of the Uterus.

In an article in the *New York Medical Journal*, on this subject, Dr. ISAAC E. TAYLOR writes as follows:—

DEGREES OF INVERSION.

By spontaneous active inversion I comprehend those cases which are created by the active contraction of the uterus itself, without subordinate means.

Three degrees of inversion are usually accepted or adopted:—

1. A simple dimpling or depression of the fundus.
2. When the fundus passes down to the os tincæ.
3. When the organ is entirely inverted, the os tincæ remaining alone uninverted.

Complete inversion, it is held by some, being more rare than others. Each of these forms exists in various degrees. To effect the greatest degree of inversion, the displacement must commence from the slightest cup-like indentation of the fundus, and go through all the intermediate stages. More or less time, it is known, is occupied in producing the inversion. Sometimes it is accomplished instantaneously under ordinary contraction of the uterus; at other times, and more generally, by considerable uterine and abdominal efforts, chiefly abdominal, according to Crosse. In some instances the accident is gradual from depression to introversion, or intussuscep-

tion to inversion, the inversion being days, weeks, or years, before it becomes complete, agreeably to some writers.

It is held by the same authorities, Crosse, for instance, that, if the uterus be well contracted after delivery, it cannot subsequently become inverted, unless again distended by blood, the sudden escape of which places the organ in circumstances somewhat similar to those attendant on delivery, and renders inversion just possible. We cannot, therefore, be far wrong in stating, as the general opinion, that inversion can only be commenced soon after labor, and that most of the recorded instances of its occurring after the lapse of days or weeks may be placed to the account of oversight or error in diagnosis. A more strongly-expressed opinion by another author (C. A. Lee) considers it self-evident that "inversion must date from a previous labor, if not depending on the weight of a polypus."

CAUSE OF INVERSION.

Instead of inversion occurring through an irregular or hour-glass contraction, agreeably to Radford, or Smith, or Duncan, it is the continuance of a regular and natural contraction, the same as we perceive if there were twins. We all know that, soon after the birth of the first child, the uterus commences anew its efforts to expel the second child, and it is easily accomplished. Should, however, the cervix take on an excess of contraction, the cervix will be closed sufficiently to delay the delivery of the second child, and it may be some time. If this were not so, then by an excess of irritability of the circular fibres of the cervix, or of the lower part of the body of the uterus, the hour-glass contraction would ensue, the after-birth would be detained. Now, if contraction of the fundus did not take place, then inertia would follow, with a strong probability of the consequence, in cases of that kind, of hemorrhage, and the unfortunate results belonging to it. Hour-glass or irregular contraction may also occur through the anterior and posterior longitudinal fibres, thus dividing the uterus lengthwise, or it may occur by the orbicular muscles, or through the whole of the circular fibres of the body. Duncan, however, rests upon the contraction of the cervix solely for his explanation of hour-glass contraction, while the fundus is in a state of inertia, or locally paralyzed.

I accept the incidental remarks which have been made by some authorities, that inversion is comparable to the prolapsus of the rectum and bladder, and I may add the uterus. I believe it is as natural a course of action, as well in the animal as in the human subject. It is more clearly and more distinctly illustrated as a clinical fact, in what we notice when the horse dungs. First the gradual elongation of the anus, when filled with its contents; then, after the dung has escaped, the anus rolled out or everted, when trying to cast off the small particles which

remain, and through the slight *vis a tergo*, with the relaxed condition of the sphincter, the intestine follows, and the intestine and rectum are fully inverted.

CASE AND TREATMENT.

June 6, 1869.—I was requested to visit Mrs. W., in consultation with Drs. N. C. Husted and Bliss, for an inversion of the uterus. Primipara, aged twenty-five years. After the delivery of the child, in a few moments, the physician in attendance introduced his hand to remove the placenta. Through strong efforts, he succeeded in inverting the uterus, the placenta still attached. He peeled off the placenta, and tried to replace the uterus, but could not. Dr. N. C. Husted was sent for. I saw the patient a few hours afterward. The opinion of Dr. Husted was confirmed. The appearance of the tumor was large, soft, and flabby, and, when pressed, would contract. There was no hemorrhage at that time. The tumor was sensitive to the touch. Patient was anesthetized. Dorsal position observed. I attempted to reinvert the uterus, after returning it into the vagina. Grasping the fundus and body in my right hand, with the left placed directly above the pubes, and expanding the upper part of the vagina with the fingers, I proceeded to make direct pressure on the cervix, as well as I could by the fingers of the left hand, and made direct and steady pressure upward in the axis of the superior strait, but without success. I then withdrew the uterus from the vagina, and, placing my index and middle fingers in the rectum, introduced them into the cervix uteri, and raising the body of the uterus, thus forming a *point d'appui*, instead of the abdomen; then, grasping the fundus and body of the uterus, I pressed firmly with the right hand against the fingers near the cervix. Having introduced the uterus into the vagina, I made steady and firm pressure downward and backward on the two fingers, which also assisted the stretching of the cervix. By perseverance, I could feel the organ begin to unfold at the cervix, and diminishing in length, when, shortly afterward, continuing efforts on the remaining part of the fundus, and removing the fingers from the rectum, the fundus passed through, and the uterus was restored to its normal position. On examination by Drs. Husted and Bliss, the fundus was felt firm and well contracted above the pubes.

In this case I had the opportunity of noticing and feeling the contraction and relaxation of the uterus, the same as we realize after delivery through after-pains. Meigs was the first, I think, if not the only authority at that time, to refer to this circumstance, and he counsels that no effort should be made during the contraction, but to wait till the spasmodic action has ceased, and then resume the pressure when relaxation takes place. Adopting the suggestion in this instance, I must say I did not feel any contraction of the cervix when the fundus

and body were in action, verifying the natural action of the uterus during labor. In a short time the uterus was restored perfectly.

I was not aware, when I had accomplished the object of restoration by this method, that I had been anticipated by Professor Courty, of Montpellier. He is therefore entitled to the credit. I had frequently thought and spoken of it as possibly a useful expedient to adopt in some cases. In chronic cases it is also applicable. Courty's case was of ten months' duration, the patient having incessant and free hemorrhages, with extreme debility. His success was rapid, complete, and permanent. The advantage of this method, it is my impression, is greater than the former and usually adopted one I first attempted.

The method I essayed at first is the one which has been advocated by all the older authorities, as the most natural, according to the principle that the part which comes down last should be first returned. Agreeably to my own views, as it is the first to be inverted, so it is the first to be restored. Some recent authorities have claimed this course as of their own suggestion.

OTHER METHODS.

In contrast with this method, as the fundus is the part first born, that part must be indented first, as the indentation began there, and the attempt must be made to overcome the accident through that portion. By many authorities it is repudiated entirely, although we have records of some instances which have been successful. If the fingers, or hand, or fist, have not succeeded, then we must use the bougie, or stick, or firm pressure on the fundus by a bougie, resting against the abdomen, while the pedicle or neck is manipulated, or a stem-pessary of a peculiar shape. It is more especially applicable in those cases where the uterus does not undergo much if any contraction during the efforts which are made through the fundus, and the uterus is softer and more yielding. One of the strongest objections urged against this procedure is that, in dimpling or indenting the fundus, if we could press the fundus upward, we should find ourselves opposed by a double inflexion, for the body would be grasped by the os uteri, and the fundus would be within the body. It is evident, therefore, that our forces should be directed so as to act upon the angle of inflexion.

The next method of taxis is where one of the cornua of the uterus is first indented gradually, and by degrees passed through the cervix, the other side, and the fundus following. This procedure has been termed the mixed method. It is the same which is carried out by the veterinary surgeon in the mare and the cow. It is in imitation of some of the cases of inversion which have occurred, and especially of the one I have quoted from Ingleby. I take it that the principle of reduction of the inversion will depend upon the condition of the uterus,

and the circumstances at the time of reduction; which of the four methods of taxis are to be adopted."

The elastic pressure, which has been so urgently impressed upon the mind of the profession the last few years, acts, as I believe, on the same principle as the rectal and vaginal taxis, and the first method spoken of. It tends to expand the superior part of the vagina, thus enlarging the cervix at its base, exciting or stimulating the fibro-elastic tissue as well as the contractility of the uterus itself, and, aided by the inherent action incident to the elevating forces of the abdomen, bounds or is lifted up into its natural position, the same as we recognize in spontaneous active reduction. The elastic pressure, like all other means to remedy this accident, has its instances of success and unsuccess. In some cases it has acted promptly in a short time. In others, as the case of Dr. F. A. Ramsey, of Knoxville, Tenn., it was seventeen or eighteen days continued, when success was obtained. I believe the length of time in the case of Dr. Ramsey is the longest period on record by this treatment. It teaches us, what we have been the last few years realizing in cases of inversion of the uterus, that steady, persistent, gentle effort, continued, will be crowned with success, either by the taxis or elastic pressure, which is only an internal taxis. This treatment has become, since the cases of Coley, of Bridgewater, in 1837, and T. Smith, of London, one of the established means to adopt when the different procedures of taxis have not succeeded.

Enormous Uterine Tumor.

Dr. WM. B. ATKINSON exhibited, at a late meeting of the Philadelphia County Medical Society, a tumor weighing perhaps thirty pounds, removed from a woman who died on the ninth day after delivery. The delivery was natural, no suspicion of such a tumor being present. Death resulted from pyæmia, and was very rapid. The diseased mass occupied the posterior wall of the uterus, and was much disintegrated.

AMERICAN MEDICAL ASSOCIATION.

The Triennial list of Permanent Members will be published this year. Permanent Members who have not paid their assessment will please notice:—

"Any Permanent Member who shall fail to pay his annual dues for *three successive years*, unless absent from the country, shall be dropped from the roll of Permanent Members."

WM. B. ATKINSON,
Permanent Secretary.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, JULY 27, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

☞ Quite too many of our subscribers, many of them old, personal friends, are in arrears on their subscriptions, aggregating a large amount of money that we ought to have in order to a vigorous prosecution of our enterprise. These parties are requested to settle their accounts immediately, or at least communicate with us at once—for, instead of at present further enlarging our edition to accommodate new subscribers, we shall resort to the expedient of dropping the unprofitable ones, and putting their bills into the hands of a collector.

SCHOOLS OF PREPARATORY MEDICAL EDUCATION.

The idea has been started for some years that schools might advantageously be established, which will take the place of the one or two years' reading as an "office student," and the six months' apprenticeship in a drug store, which a time-honored custom of our country thinks proper for a young man to undergo before he commences to attend lectures.

At least one such school has been estab-

lished, and we believe several. That whose second annual announcement is before us is at Saint Paul, Minnesota, and numbers among its other instructors our worthy associate in the editorial line, Dr. ALEXANDER J. STONE, editor of the *Northwestern Medical and Surgical Journal*.

An extract from the announcement will show the objects of the school. It says:—

"Believing it for the best interests of the Medical Profession of our State that students shall be given greater facilities for obtaining a *preparatory* medical education than can be afforded by any single instructor, and in accordance with resolutions adopted by the American Medical Association, 'cordially approving the establishment of private schools to meet the increased demand of Medical students for a higher grade of professional education than can usually be acquired under the direction of a single instructor,' the 'Board of Instructors' have organized the St. Paul School for Medical Instruction.

"The object of this school is not to represent, or in any way take the place of, a regular *College*, but to prepare students for a better understanding of the lectures which they will hear in the College course, and to drill them more thoroughly in the elementary branches than can be done in the short time allowed by Colleges for instruction; and the arrangement of terms of study will be such that they will not interfere with the winter course of the Colleges.

"The plan of instruction is designed to be, in all respects, thoroughly practical, using all available means of instruction. The mode of teaching is by daily lectures and examinations, and regular clinics, conjoined with oral discussions, in which all the students participate.

"The fact that practical anatomy will be taught each year forms one of the strongest arguments in favor of thus dividing the labor amongst several instructors. Lectures upon Special and Surgical Anatomy will be regularly given, and students will have the opportunity of performing all the principal Surgical operations on the cadaver, under the eye of the teacher."

The course of study in the institution includes recitations and lectures upon Surgery, Therapeutics, *Materia Medica*, Diseases of

Children, Anatomy, Chemistry, Physiology, Pathology, Medical Jurisprudence, Principles and Practice of Medicine, Obstetrics and Diseases of Women.

We believe this is a meritorious endeavor to elevate medical education; but we are not so well satisfied that the above mentioned course of study is a judicious one. The preparatory instruction required by medical students in this country is a far more elementary one, and if that were adopted, the services rendered professional education would be far greater. It is not clinical medicine, practice, pathology, medical jurisprudence, or gynecology, these schools should teach, but a familiarity with anatomy, with drugs, with the principles of chemistry, with medical phraseology, with Latin enough to write a prescription, with the general laws of physiology and hygiene. They should aim to occupy the outlying works and surroundings of the science, not, as here, the very citadel itself. More humble in aims, they would be more useful to the times. They should be but little occupied with the study of disease, but almost solely with the facts which, when learned, are to be applied in treatment. Too practical, they become too precocious, and are in danger of being of scant usefulness.

NOTES AND COMMENTS.

Deaths from Chloroform.

Mr. W. F. MORGAN, M. R. C. S., writes to the *British Medical Journal*, June 1, about chloroform:—I fully believe that failure of the heart is the great source of danger in its administration; and that electricity, cautiously employed, is the most prompt and certain remedial measure. I shall not soon forget a striking example in the case of an old man admitted with strangulated hernia. The taxis under ordinary circumstances having failed, he was put under chloroform for another trial previously to operation. The hernia was now readily reduced, but immediately he became deadly pale, his pulse stopped, and he seemed in *articulo mortis*. Instant recourse was had to the electro-

magnetic battery, and almost as instantly the pulse returned, and the man was safe.

In my experience, whenever dangerous symptoms have arisen, the heart has been the organ affected; and that is, I believe, the result to be watched and provided for when chloroform is administered. I can readily imagine that the lungs may suffer and asphyxia be produced by complicated apparatus and failing valves, mechanically suffocating the patient. Nothing can be more simple, and in my judgment more safe and effectual, than the plan adopted at the Bristol Royal Infirmary. A hollow sponge, conical in shape, with a hole at the apex, is held loosely over the mouth and nostrils, the chloroform being sprinkled on the interior, with or without the intervention of a bit of lint, the admission of air being regulated by a thumb on the hole at the apex. In the two deaths from chloroform which have occurred in the Infirmary, only a very moderate quantity was used, as if the unfortunate result was due to some idiosyncrasy.

A Case of Hermaphroditism.

At a recent meeting of the London Pathological Society, Mr. JOHN WOOD exhibited the pelvis and genital organs of an adult hermaphrodite. The case was very remarkable. The transverse diameter of the pelvis was feminine, but the antero-posterior was masculine. There were large labia majora, and each contained a full-sized testicle, with its normal coverings. There was a penis, or clitoris, of the size of that of a boy about ten years of age; and a *cul-de-sac*, or vagina, one inch in diameter across and two inches long. There was a proper vas deferens, which entered the prostate gland. He believed the individual to have been a male subject, with very well pronounced hypospadias. Malignant disease of the liver and intestine, with the blocking up of the rectum, was the cause of death. This individual had always been looked upon as a female, and had been married to a man who had afterwards absconded. Dr. WILKS questioned the conclusion of Mr. WOOD that the person was a male. When the male organs are not developed, as in the present case, the person generally assumes a female character. He alluded to several cases in point, in which the individual in each case had all the characters of a woman, but was afterwards found to have testicles. Mr. HULKE

asked if the *cul-de-sac* was congenital, or formed by repeated attempts at connection? Mr. WOOD, in reply to Dr. WILKS, pointed out that, in the present case, the testicles were fully developed; to Mr. HULKE, that he could not say, as he was unable to ascertain much about the patient; and to the President, that he had not examined the spermatozoa.

The Tannate of Quinia.

This substance was discussed at a late meeting of the Pharmaceutical Society of Paris. Mr. ROUCHER regards it as possessing rather less activity than the sulphate, but to possess certain advantages in special cases. Mr. REGNAULT stated that by precipitating acetate of quinia with tannin, a turbid liquid is obtained which will pass through the filters, so that it is impossible to wash the newly formed compound, which is very soluble in acetic acid, and which separates completely on the addition of a little sulphuric acid or even of sulphate of soda. The tannate of quinia, freed from sulphuric acid, is nearly insoluble in water, but soluble in alcohol. The speaker also believes that the morphia in wine of opium is not precipitated by the little tannin contained in the cinnamon and cloves, as believed by Mr. DELIQUX DE SAVIGNAC, for which reason he had proposed to substitute these aromatics by sugar, also to replace opium by its extract.

Kidd's Operation for Vesico-Vaginal Fistula.

A paper was lately read to the Surgical Society of Ireland, in which Dr. MAPOTHER described a method of operating for vesico-vaginal fistula, proposed by Dr. G. H. KIDD, and illustrated his remarks by a case in which it had been successful. The patient, aged 25, had fistula from sloughing of the anterior wall of the vagina close to the neck of the bladder. There was a small circular opening. At the beginning of March, in accordance with Dr. G. KIDD's procedure, a semicircular or U-shaped incision was made round the fistulous opening. The flap thus made was turned aside; and a second flap, formed by an incision half through the vesico-vaginal septum, having been pared on the vaginal surface, was brought up over the situation of the fistula, and secured by four wire sutures. A No. 6 catheter was kept in the bladder for some time, and a rapid and complete recovery followed. The

escape of urine was quite prevented by the flap being brought over the vesico-vaginal opening. Dr. G. H. PORTER had seen the operation performed on one occasion by Dr. ROE. The aperture was of very small dimensions. He considered that, from the nature of the soft parts engaged in the procedure, the knife employed should be extremely sharp.

Determining Sulphites from Bisulphites.

At a meeting of the Pharmaceutical Society of Great Britain, Mr. WILLIAMS stated that bisulphite of lime, being soluble in water, may be used as a test to determine whether salts are sulphites or bisulphites. A solution of chloride of calcium is added to the solution of the bisulphite to be tested; if a precipitate occurs (which may be sulphite, sulphate or carbonate), the whole is thrown on a filter, and the filtrate precipitated by lime water, which neutralizes the excess of sulphurous acid, and from the amount of sulphite thus produced, the percentage of bisulphite originally present in the sample can be easily calculated.

Tenotomy of the Tensor Tympani.

Dr. T. E. WEBER publishes his experience in tenotomy of the tensor tympani muscle, and says: Subjective perceptions of the ear have been cured mostly; if giddiness was combined with it, it was always abated; the power of hearing reappearing very often; tenotomy of this muscle seems to be a good preservative for hearing. Other facts and remarks, the description of the knife and the method interesting to specialists, can be omitted here. The author refers to Professor HYRTL, who has spoken of the possibility of this operation.

Antidotes to Carbolic Acid.

Dr. T. HUSEMANN ("Memorabillen," 1872) says that oils can be used as antidotes in poisoning by carbolic acid and creasote. Curara is no antidote. Carbolate of potash and the metals are as poisonous as carbolic acid itself. Chalk is not altogether useless as an antidote, but is not so useful as the saccharine carbonate of calcium. The greatest hope as an antidote is to bring about the oxydization of the carbolic acid. A stomach pump, if at hand, is the best remedy in poisoning by carbolic acid; emetics do more harm than good. 33

On Tests for Ergot.

Dr. W. H. TAYLOR remarks, in the *Virginia Clinical Record*, on testing for ergot in cases of criminal abortion:—It is greatly to be desired that some unequivocal test shall be found for this drug. As the matter stands now there is none to which exceptions may not be taken of such an insuperable nature as to render it nugatory in a medico-legal investigation. When we consider what grave objections may be reasonably urged against the assumed detection in organic mixtures of such substances as morphia and strychnia, whose reactions have been so long and elaborately studied, we can scarcely expect to certainly identify ergot, on which so much less attention has been bestowed. And, in fact, the prospect for the attainment of certainty in this direction is growing darker instead of brighter day by day. With the intense activity now prevailing in the domain of organic chemistry new combinations are brought to light faster than the characters of the older ones can be determined, and in our ignorance of their properties it is clear that we cannot know what influence these combinations, new to us, but perhaps old to Nature, may be exerting upon the odors, and colors, and crystalline forms on which we are so prone to rely. It is with reason that Fresenius recently wailed forth an invocation to the workers amongst organic compounds, beseeching them to make good their ground as they advance, by more accurately and fully ascertaining the chemical relations of the bodies they discover, and so restore, if they can, to the analytic chemist some of that confidence he formerly felt when he knew not enough to know how ignorant he was.

Treatment of Ectropion.

The following notes are from the clinic of Dr. THIRY, of Brussels:—*Ectropion* is, in the great majority of cases, an affection of the lower lids. Chronic ciliary blepharitis is one of the most common causes of the affection. Although in the majority of cases trichiasis is a cause of *entropion*, yet in certain cases it may cause *ectropion*, especially when the treatment is careless and the eyelid irritated by the way in which the hairs are pulled out. In other cases *ectropion* is caused by relaxation of the central parts of the orbicular muscle, where the contents of the orbit have long pressed on it, as when

there has been chronic inflammation of the conjunctiva, or tumor of the orbit. Palsy of the seventh pair of nerves may cause a form of *ectropion* (paralytic), or in old persons the lids fall from their own weight (senile). The consequences of *ectropion* are most distressing. The palpebral conjunctiva, constantly exposed to the air, loses its normal properties, becomes hypertrophied, and forms a more or less marked elevation, which is frequently inflamed and becomes hypertrophied; the lashes soon fall, whilst the organs of sensation and nutrition are deeply altered. The tears can no longer flow off by the lachrymal ducts, and thus flow over the cheeks, which they excoriate and inflame. The globe of the eye, unprotected by the lid, becomes inflamed, as does the cornea, which very often becomes the seat of ulcers, whose gravity may entail the loss of the eye. As palliative treatment, a lotion composed of 4 grammes of bismuth, with 8 grammes of starch in 12 grammes of glycerine, is used by Dr. Thiry. For curative treatment he makes an incision from the external angle of the eye, comprehending the whole thickness of the skin, and ten to twelve millimetres in extent upwards and outwards. Another incision is made from the outer angle downwards, and to the same extent, and the points united. The triangle of skin is then dissected away. The sutures, whether metallic or vegetable, must be inserted deeply. Thus the lower lid is drawn outward and shortened, whilst the *ectropion* is removed.

CORRESPONDENCE.

Myopia and Convex Glasses.

EDS. MED. AND SURG. REPORTER:

In the case reported by Dr. M. M. BROWN, in the No. of this Journal for June 8th, he asks the question "Why was it that convex glasses were applicable to a case of apparent myopia?"

From his history of the case, we fail to find any cause at all likely to produce a myopic condition, and think it must have been indeed *only* apparent. We account for the benefit derived from the use of convex glasses in this way: As a result of the very severe injury to the eye, the patient's vision was very much impaired, both for near and distant objects, but by the use of convex

glasses of considerable strength, he obtained a *magnified image* of near objects (as print, etc.) which, to some extent, compensated for the indistinctness and enabled him to see.

This is the case, moreover, frequently in *true myopia* of a very high degree, very strong concave glasses failing to bring the rays to a focus upon its retina, or if they do so the image is so much reduced in size that the patient is often willing to sacrifice a clear definition of the object for an increased size of the image. Amplifiers are the forms of instrument most frequently used. DONNERS makes mention of this in his exhaustive treatise on the "Anomalies of Refraction and Accommodation."

SWAN. M. BURNETT.

Knoxville, Tenn., July 4th, 1872.

NEWS AND MISCELLANY.

University of Louisiana.

Prof. Warren Stone having resigned the Chair of Surgery, Prof. T. G. Richardson has been elected to fill the vacancy.

Dr. Samuel Logan, late of the New Orleans School of Medicine, has been elected to the Chair of Anatomy vacated by Dr. Richardson.

Medico-Chirurgical Society of Philadelphia.

Officers elected:—

President.—P. D. Keyser, M. D.

1st Vice President.—E. P. Bernardy, M. D.

2d Vice President.—J. S. Eshleman, M. D.

Secretary and Treasurer.—John W. Millick, M. D.

Assistant Secretary.—Thos. A. McRean, M. D.

Corresponding Secretary.—H. W. Ozias, M. D.

Councillor for four years.—A. G. Reed, M. D.

Councillor for five years.—James Collins, M. D.

Patents Issued.

List of Medical Patents issued from the U. S. Patent Office to United States Inventors, for the week ending July 2, 1872, and each bearing that date. Furnished this

paper by Cox & Cox, Solicitors of Patents, Washington, D. C. :—

Medical Compound for Heart Disease, &c.—Michael D. Britten, Eaton, Mich.

Medical Compound for the Teeth—John C. Hassell, Nevada City, Cal.

Medical Compound for Coughs, Colds, &c.—John Willey, Oakland, Cal.

MARRIAGES.

BENNETT—BLACKMAN.—At the residence of the bride's mother, Mississippi City, on the 18th July, by the Rev. E. G. Taylor, D. D., Mr. Pickens C. Bennett, of New Orleans, and Miss Sue G., daughter of the late Dr. H. M. Blackman, of Lake Providence, La.

BOOTH—MACLAY.—By Rev. J. O. Hough, May 16, at the residence of Dr. C. B. MacLay, Mr. C. L. Booth and Miss Siddle MacLay, all of Delavan, Ill. CLEGG—EUGAR.—At Trinity Church, New York, June 27, by Rev. W. W. Holley, Charles A. Clegg, of Dayton, Ohio, and Mary Seguire, daughter of Dr. D. A. Edgar, of Staten Island.

CORTELYOU—TOWNSEND.—June 29, at St. George's Church, Newburgh, New York, by Rev. Dr. Brown, Dr. L. V. Cortelyou and Carrie, youngest daughter of the late William H. Townsend.

DURYEE—HALL.—At Newark, N. J., June 27, by Rev. E. P. Terhune, D. D., Miss Amy J. Hall, daughter of A. A. Hall, Esq., of Newark, N. J., and L. Duryee, of Champlain, N. Y.

FRENCH—BURLEIGH.—In Concord, N. H., June 26, by Rev. Hosea Quimby, O. L. French, M. D., of Glover, Vermont, and Nellie Burleigh, of Concord, N. H.

JAMES—THOMPSON.—In the Second Presbyterian Church, Rahway, N. J., June 19, by the Rev. J. A. Liggett, assisted by the Rev. David M. James, of Bath, Pa., Hiram H. James, M. D., and Fannie E., daughter of the late Jonathan Thompson, of Rahway.

MARTIN—HUBER.—June 27, at the residence of the bride's parents, in Hamilton, Ohio, by the Rev. Albert Nichols, James A. Martin, of Dayton, and Anna, eldest daughter of Dr. William Huber.

PRATT—STROGGE.—In Harrisburg, Pa., June 27, by her father, the Rev. A. K. Strong, D. D., assisted by the Rev. E. H. Pratt, Miss Mary E. Strong and Ezra B. Pratt, M. D., of Chaumont, N. Y.

RODGES—WATSON.—By Rev. R. F. Wilson, in Bedford, Pa., June 29, 1872, at the home of her brother, Dr. William Watson, Dr. Joseph G. Rodgers, of Madison, Indiana, and Miss Maggie S. Watson, of Bedford, Pa.

DEATHS.

BANKS.—Near New Hamburg, New York, July 3, 1872 Levenax, son of Dr. James L. and Isabella M. Banks, aged 4 months and 4 days.

CHEESMAN.—In New York, on Tuesday morning, July 2, Martha H. Cheesman, widow of the late John C. Cheesman, M. D., and daughter of the late Willet Hicks.

CLARK.—At Perth Amboy, N. J., on Tuesday, July 9, Freddie, only son of Dr. S. V. D. and Anna M. Clark.

DOW.—In Plainfield, Vermont, June 10, of consumption, George Henry, youngest son of Dr. Hiram and Elizabeth Dow, aged 24 years.

EBERSOLE.—Of cholera infantum, Clifford, son of Dr. Jacob and Frances Ebersole, aged 6 months.

GILLETTE.—In New York, July 5, Walter Cutenius, infant son of Dr. W. R. and Annie C. Gillette.

GRIFFIN.—In New York, on Saturday, July 6, Bradney Griffin, M. D., in the 30th year of his age.

HUNT.—Sunday, July 7, at Cornwall, on the Hudson, in the 48th year of his age, Charles H. Hunt, counsellor-at-law, son of Dr. Samuel M. Hunt.

TOTTEN.—At Quezaltenango, Guatemala, May 29, Gilbert H. Totten, M. D., son of Col. George M. Totten, aged 33.